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METAL-CERAMIC ALLOY FOR PACKING GAS TURBINES, (U)
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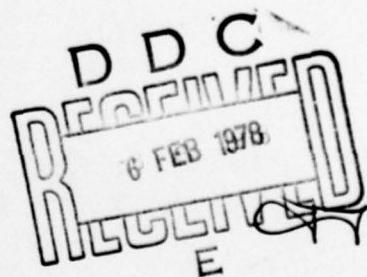


METAL-CERAMIC ALLOY FOR PACKING GAS TURBINES

by

Yu. N. Semenov, G. L. Dubrov,
N. A. Kazantseva

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Б б	Б б	B, b	С с	С с	S, s
В в	В в	V, v	Т т	Т т	T, t
Г г	Г г	G, g	Ү ү	Ү ү	U, u
Д д	Д д	D, d	Ф ф	Ф ф	F, f
Е е	Е е	Ye, ye; E, e*	Х х	Х х	Kh, kh
Ж ж	Ж ж	Zh, zh	Ц ц	Ц ц	Ts, ts
З з	З з	Z, z	Ч ч	Ч ч	Ch, ch
И и	И и	I, i	Ш ш	Ш ш	Sh, sh
Й й	Й й	Y, y	Щ щ	Щ щ	Shch, shch
К к	К к	K, k	Ь ъ	Ь ъ	"
Л л	Л л	L, l	Ы ы	Ы ы	Y, y
М м	М м	M, m	Ь ъ	Ь ъ	'
Н н	Н н	N, n	Э э	Э э	E, e
О о	О о	O, o	Ю ю	Ю ю	Yu, yu
П п	П п	P, p	Я я	Я я	Ya, ya

*ye initially, after vowels, and after ъ, ъ; e elsewhere.
When written as ё in Russian, transliterate as yё or ё.
The use of diacritical marks is preferred, but such marks
may be omitted when expediency dictates.

GREEK ALPHABET

Alpha	A	α	•	Nu	N	v
Beta	B	β		Xi	Ξ	ξ
Gamma	Γ	γ		Omicron	Ο	ο
Delta	Δ	δ		Pi	Π	π
Epsilon	E	ε	•	Rho	Ρ	ρ
Zeta	Z	ζ		Sigma	Σ	σ
Eta	H	η		Tau	Τ	τ
Theta	Θ	θ	•	Upsilon	Τ	υ
Iota	I	ι		Phi	Φ	φ
Kappa	K	κ	•	Chi	Χ	χ
Lambda	Λ	λ		Psi	Ψ	ψ
Mu	M	μ		Omega	Ω	ω

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English
sin	sin
cos	cos
tg	tan
ctg	cot
sec	sec
cosec	csc
sh	sinh
ch	cosh
th	tanh
cth	coth
sch	sech
csch	csch
arc sin	\sin^{-1}
arc cos	\cos^{-1}
arc tg	\tan^{-1}
arc ctg	\cot^{-1}
arc sec	\sec^{-1}
arc cosec	\csc^{-1}
arc sh	\sinh^{-1}
arc ch	\cosh^{-1}
arc th	\tanh^{-1}
arc cth	\coth^{-1}
arc sch	sech^{-1}
arc csch	csch^{-1}
rot	curl
lg	log

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METAL-CERAMIC ALLOY FOR PACKING GAS TURBINES

Yu. N. Semenov, G. L. Dubrov and N. A. Kazantseva

Institute for Problems of Materials Technology of the Academy of Sciences Ukrainian SSR

Metal-ceramic alloys are known which consist of nickel and boron nitride. At high temperatures, however, they adversely affect the properties of adaptability of the packing material to fitting.

The suggested alloy is distinguished by the fact that for increasing its heat resistance silicon is introduced into its composition in the limits of 2-3 o/o and the remaining components are taken in the following percentage relationship: nickel 90-93 and boron nitride 4.5-7 which is supplementarily heat treated at a temperature of 2100-2200°C.

The heat-treated boron nitride powder is mixed with electrolytic nickel and silicon powders and then they are subjected to pressing, sintering, repressing and repeated sintering at a temperature of 1100° C for two hours.

The experiments which were conducted showed that during supplementary thermal processing of boron nitride the heat resistance of the new metal-ceramic packing material for gas turbines increased considerably.

OBJECT OF THE INVENTION

Metal-ceramic alloy for packing gas turbines containing nickel and boron nitride is distinguished by the fact that for increasing the heat resistance silicon was introduced into its composition in the limits of 2-3 o/o and the remaining components were taken in the following percentage relationship: nickel 90-93, and boron nitride 4.5-7 supplementarily heat treated at a temperature of 2100-2200°C.

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